CLAIMS

1   A storage area network comprising a plurality of storage servers, a first of which (5) is directly connected (as herein defined) to a network (2) and others of which (7,8 and 9) are connected via the first storage server, the first storage server having an internal protocol server that inserts an identifier into the protocol package so that the protocol package differs from the protocol of the main network and the first storage server supplies the protocol to the other storage servers which recognise the identifiers

2   A storage area network according to claim 1 in which the first storage server operates in a master mode which includes having its internal protocol server turned on and operating at file level, and said other storage servers operate in a slave mode which includes operating at block-level

3   A storage area network according to claim 2 in which the rest of the storage servers also have an internal protocol server, and the slave mode further includes the internal protocol servers being inoperative

4   A storage area network according to any preceding claim in which the first storage server is configured to start up with its internal protocol server inoperative and upon receipt of a standard event from the main network, the internal protocol server commences operation

5   A storage area network according to any preceding claim in which the storage servers are similar and interconnected via Ethernet connection

6   A storage area network according to any preceding claim in which a cluster of storage servers are directly connected to the main network and to said other storage servers and only one of said cluster inserts the identifier into the protocol package

7   A storage area network according to claim 6 in which the storage servers of the cluster all operate in file level mode

8   A storage network according to claim 6 or claim 7 in which the cluster of storage servers establish which one is to insert the identifier

9   A method of establishing mode of operation for a storage server in a storage area network, the storage area network comprising a plurality of storage servers a first of which (5) is directly connected (as herein defined) to a main network (2) and others of which (7, 8 and 9) are connected to the first storage server, and said server for which the mode of operation is to be established being capable of operating in a master or slave modes, the method comprising

starting up,

examining an incoming event to determine if it corresponds to network protocol or contains a particular protocol modification, and

when the event corresponds to network protocol without the particular modification proceeding with further operation in master mode and inserting the particular protocol modification into events destined to other storage servers,

or when the incoming event contains the particular protocol modification, proceeding with further operation in slave mode

10   A method according to claim 9 in which the particular protocol modification comprises a specific type value within a variable field

11   A method according to claim 9 or claim 10 in which the servers start up with their internal protocol servers turned off an when an event corresponding to network protocol without modification is detected, the server turns on its internal protocol servers

12   A method according to any of claims 9 to 11 in which the servers start up in one of block level mode or file level mode, when an event corresponding to network protocol

without modification is detected, the server proceeds further in file level mode and when the event detected contains the modification the server proceeds further in block level mode

13   A method according to any of claims 9 to 12 in which a cluster of storage servers are directly connected to the main network and to said other storage servers and upon detection of an event corresponding to network protocol without modification each of said cluster of storage servers proceeds with further operation in file-level mode and one of the cluster inserts the identifier

14   A method of establishing mode of operation for a device capable of functioning in a master or slave mode, the device to operate in master mode when connected to experience events on a network and to operate in slave mode when a device operating in master mode is interposed between it and connection to the network,

the method comprising powering up the device, establishing whether a particular event corresponds to an event on the network or to a modified event, and when the event corresponds to an event on the network adopting master mode operation or when the particular event corresponds to a modified event, adopting slave mode of operation

15   A method according to any of claims 9 to 14 in which the event is the receipt of an IP address